

REMARKS

Prior to this response, Claims 1-38 were pending in the application. By this amendment, Claims 1, 20 and 38 are amended. No claims are added or cancelled. Hence, Claims 1-38 are now pending in the application.

SUMMARY OF THE REJECTIONS/OBJECTIONS

Claims 1-38 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Chao et al. ("*Chao*"; U.S. Patent No. 6,622,159).

THE REJECTIONS BASED ON THE PRIOR ART

Claims 1-38 were rejected under 35 U.S.C. § 102(e) as allegedly anticipated by *Chao*. This rejection is traversed on the basis that a *prima facie* case of anticipation was not established, based on the following.

Chao fails to teach or suggest every limitation of Claims **1, 20 and 38** and, therefore, does not fairly anticipate these claims. *Chao* discloses "continuous server service" provided during switching from a current server version to a new server version (Abstract). Claims 1, 20 and 38 of the application recite a computer-implemented method, a computer-readable medium, and an apparatus, respectively, for reconfiguring an application executing on a computer system without restarting the system. Thus, Applicants concede that, at that level of detail, *Chao* sounds similar to the embodiments recited in Claims 1, 20 and 38. However, there is at least one fundamental difference between the teachings of *Chao* and Claims 1, 20 and 38, described hereafter.

The approaches disclosed in *Chao* leave a socket open while switching between server versions, in order to continue receiving client calls during switching. Significantly, however, *Chao*'s approaches buffer any client calls received during the switching between versions and, subsequently, processing those calls received during the switching process (col. 2, lines 7-10,

20-22, 33-39, 48-51, 57-64; col. 3, lines 11-16, 46-57). *Chao* explicitly discloses subsequently processing the buffered client calls (col. 3, lines 51-52) and that server versions may be updated with the appearance of continuous server service (col. 3, lines 54-57). In fact, the service is not really continuous because no calls are actually serviced during the version switching process.

This is in clear contrast with the embodiments recited in Claims 1, 20 and 38, in which the second application configuration is provided to an application runtime environment for servicing new requests related to the application while maintaining the first application configuration for servicing, concurrently with the servicing of new requests based on the second application configuration, existing requests related to the application. In other words, the second application version can service requests at the same time (i.e., concurrently) that the first application version is servicing requests. Hence, the embodiments recited in Claims 1, 20 and 38 go beyond the mere appearance of continuous service and actually provide continuous service by allowing multiple versions of an application to service requests at the same time, without buffering and subsequently servicing incoming service calls.

The language of Claims 1, 20 and 38 is slightly amended to remove any ambiguity as to which application versions concurrently service the existing (e.g., the first application configuration) and the new (e.g., the second application configuration) requests. Thus, this amendment is not for reasons of patentability and is tangential to any equivalents associated therewith. Consequently, estoppel under the *Festo* line of cases should not apply to the amendment of these claims.

For the foregoing reasons, Claim 1 is patentable over the cited reference of record. Therefore, withdrawal of the rejection of Claim 1 under 35 U.S.C. § 102(e) is respectfully requested.

Dependent Claims **2-13 and 21-31** depend from Claims 1 and 20, respectively.

Therefore, Claims 2-13 and 21-31 are patentable over the cited references of record for at least the same reasons as the claims from which these claims respectively depend. Furthermore, each of Claims 2-13 and 21-31 recites at least one additional feature that makes it separately patentable over the cited references of record. Due to the fundamental distinctions between the independent claims and the teachings of *Chao* already described, exhaustive discussion of these additional patentable features recited in the dependent claims is foregone at this time, except as follows. However, the rejections of these dependent claims are collectively traversed, and no statements of official notice or allegations of well-known features that may be present in the Office Action are stipulated to or admitted as prior art features, and the right to separately argue such features in the future is not disclaimed.

For example, Claims **2 and 21** recite destroying the first application configuration upon completion of its servicing requests and freeing up resources that were maintaining the first application. The Office Action relies on col. 5, lines 7-24 of *Chao* for an alleged teaching of this feature. However, a careful reading of this citation shows that no mention is made of “cleaning up” (i.e., making available for other uses) computing resources after an older version is destroyed. Rather, this citation simply discusses the reason why a buffer is used to queue client calls that are received while the version switching process is occurring. For this additional reason, Claims 2 and 21 are patentable over the cited references of record.

For example, Claim 7 recites that constructing the second application configuration is based on an application runtime environment. An application runtime environment is a container (e.g., container 114 of FIG. 1) in which an application executes and which provides access to the resources required to process application service requests, where different applications may execute in association with different containers. The Office Action relies on

col. 3, lines 36-56 of *Chao* for an alleged teaching of this feature. However, a careful reading of this citation shows that no mention is made of application runtime environments as described in the application and, therefore, *Chao* does not disclose constructing an application configuration based on an associated runtime environment (e.g., runtime configuration data structures 116). Rather, this citation simply summarizes the invention of *Chao*, including the use of a buffer to queue the client calls received while the version switching process is occurring and the subsequent servicing of the queued calls by the new version after version switching is completed. For this additional reason, Claim 7 is patentable over the cited references of record.

For example, Claim 13 recites that the first application configuration is maintained for servicing, without interruption, existing requests related to the first application from an existing connection. The Office Action again relies on col. 3, lines 36-56 for an alleged teaching of this feature. However, col. 5, line 6-24 of *Chao* discusses that “because current server version 120 has commenced deactivation, client calls made after the initiation of switching to new server version 130 are not able to be processed by current server version 120.” This is in clear contrast to the embodiment recited in Claim 13, in which the old server version can continue to service existing requests from an existing connection while the new version processes new requests. For this additional reason, Claim 13 is patentable over the cited references of record.

Chao fails to teach or suggest every limitation of Claims **14 and 32** and, therefore, does not fairly anticipate these claims. Independent Claims 14 and 32 recite a first request that is associated, via a global variable, with a first application configuration and a second request that is associated, via a global variable, with a second application configuration. See, e.g., paragraphs [0013], [0014], [0016] and [0017]. *Chao* does not teach or suggest use of a global

variable for storing a reference or pointer to a configuration data structure that controls all requests, events, and activities received on those connections that are associated with the global variable, as described in the application. By contrast, in the case of a restart, *Chao* leaves open a socket associated with the current server version during switching from the current server version to a new server version, only so that calls made during switching continue to be received. Associating different requests with different application versions via a global reference or pointer to the different application configurations is different than simply leaving a socket open so that no calls are dropped, or associating socket descriptors with that open socket (not with an application configuration) so that the new version can identify the open socket.

Further, *Chao* does not teach or suggest use of such global variables to enable concurrent servicing of requests by two or more differently-configured versions of the same application, as recited in Claims 14 and 32. By contrast, the new server version of *Chao* utilizes the same socket as the old version, not a different variable value that references the configuration information for the differently-configured versions.

Based on the foregoing reasons, *Chao* does not anticipate Claims 14 and 32 and withdrawal of the rejection of Claims 14 and 32 under 35 U.S.C. § 102(e) is requested.

Dependent Claims **15-18 and 33-37** depend from Claims 14 and 32, respectively. Therefore, Claims 15-18 and 33-37 are patentable over the cited references of record for at least the same reasons as the claims from which these claims respectively depend. Furthermore, each of Claims 15-18 and 33-37 recites at least one additional feature that makes it separately patentable over the cited references of record. Due to the fundamental distinctions between the independent claims and the teachings of *Chao* already described, discussion of these additional patentable features recited in the dependent claims is foregone at this time. However, the rejections of these dependent claims are collectively traversed, and no statements of official

notice or allegations of well-known features that may be present in the Office Action are stipulated to or admitted as prior art features, and the right to separately argue such features in the future is not disclaimed.

Chao fails to teach or suggest every limitation of Claim 19 and, therefore, does not fairly anticipate this claim. Claim 19 is somewhat similar to Claim 1 in that, while processing pending requests by one application version, a new request is processed by a different application version. Thus, two different versions of the application are processing requests at the same time. Therefore, the reasons set forth above for why Claim 1 is not anticipated by *Chao* are also applicable to why Claim 19 is not anticipated by *Chao*. Claim 19 further recites the presence of two or more former application configurations of the same application, in addition to the current application configuration; and the processing of pending requests by any of the former configurations. Thus, the embodiment recited in Claim 19 captures the scalability of this approach, in that more than two versions can be running at the same time, i.e., multiple old versions and one current version. Based on the foregoing reasons, *Chao* does not anticipate Claim 19 and withdrawal of the rejection of Claim 19 under 35 U.S.C. § 102(e) is requested.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that all of the pending claims (1-38) are in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application.

Please charge any shortages or credit any overages to Deposit Account No. 50-1302.

Respectfully submitted,

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